GW150 USER'S MANUAL

*** Important ***
Read User's Manual Completely Prior to Operating, Towing, or Servicing Wagon

Par-Kan Company
2915 West 900 South
Silver Lake, IN 46982

Phone: 1-800-291-5487
Phone: 260-352-2141
Fax: 260-352-2141

Contact: Sales Department
Email: GWSales@par-kan.com
Website: www.par-kan.com

GW150

CUSTOMER: _____

SERIAL # _____

V.I.N. _____

WEIGH TRONIX SERIAL # _____

Grain-Weigh 150 Manual Table of Contents

Page 4 ..... Warranty Information

Page 5 ..... Approximate Cart Dimensions

Page 6 ..... Special Instructions

Page 7 ..... General Specifications & Features

Page 8 ..... Safety Precautions

Page 9 ..... Operation Precautions

Page 10 ..... Maintenance & Storage

Page 11 ..... Operating Procedures

Page 12 ..... Operation of Maintenance Meter

Page 13 ..... Hydraulic Brake Adjustment

Page 14-15 ..... Trouble Shooting

Page 16 ..... Hydraulic Assembly

Page 17-24 ..... Replacement Parts Listing

Page 25-26 ..... Electrical Schematics

Page 27-28 ..... Hydraulic System

Appendices

Page 29 ..... Towing Safety

Page 30-31 ..... Shurco Replacement Parts

Page 32 ..... Weigh Tronix™ Calibration Procedure

Page 33-36 ..... Weigh Tronix™ Adding LED Light Procedure

Page 37. ..... Contact Information

User Manual's

-Briggs & Stratton® Operator/Owner Manual

-Demco DA10 Actuator Operator's Manual

-Shurco Owner's Manual

-Weigh Tronix™ Model 640 User's Manual

-Demco Brakes 13" x 2-1/2" Operator's Manual

-Wallace Forge

Note: This manual supersedes any other information supplied by Par-Kan Company before this date, and is good only for serial numbers listed in the manual.

Par-Kan Company - Grain Weigh Division
Model GW-150 One Year Warranty

Par-Kan Company's Grain-Weigh Equipment is warranted to the original purchaser to be free from defects in material and workmanship for a period of one year from the date of purchase as dated on Grain-Weigh's original invoice.

Grain-Weigh will replace during the warranty period, subject to an examination by an authorized representative of Grain-Weigh, any warranted part which proves defective in material and/or workmanship under normal installation, use, and service. Parts must be returned, and transportation charges prepaid to our factory. Any changes to the Grain Weigh equipment as a result of modifications, misuse, abuse, neglect, accident, vandalism, fire, flood, other acts of God, or improper installation will void this warranty.

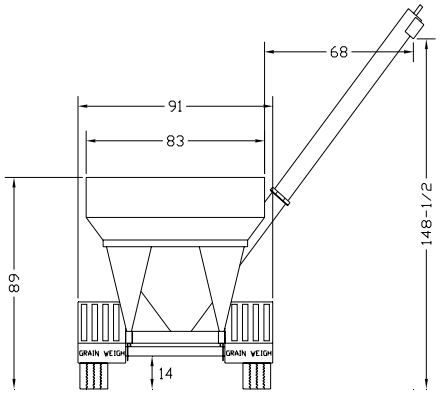
If Grain-Weigh receives notice of such defects during the warranty period, Grain-Weigh will either, at its option, repair or replace products which prove to be defective. Other manufacturer's warranties may apply for parts purchased by Grain-Weigh. Grain-Weigh makes no other warranty, either expressed or implied, with respect to this product. Any special, incidental, or consequential damages arising from any breach of warranty are specifically excluded hereunder.

Manufacturer's Warranties:

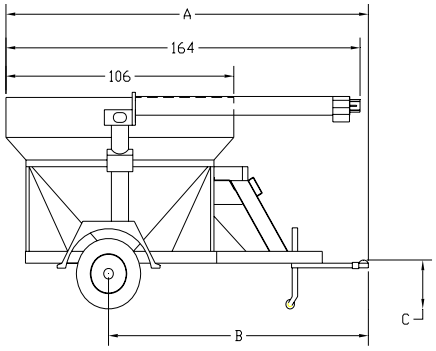
Axis Torsion Axle, 1 Year Warranty
Weigh Tronix™ Scale System, 3 Year Warranty
Briggs & Stratton® 18 H.P. Vanguard Engine, 2 Year Warranty

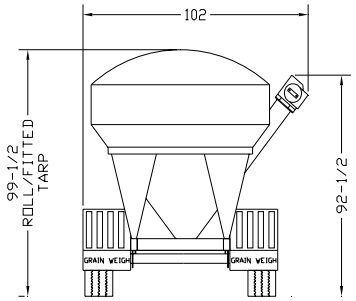
GW150 Dimensions

DIMENSION	NON-BRAKE	BRAKE
A	168-1/2	175-3/4
B	ADJUSTABLE 117, 118-3/8, 119-3/4	ADJUSTABLE 124-1/4, 125-5/8, 127
C	*17-1/8	*14-1/2 MIN, 18-1/2 MAX
D	226-1/2	233-3/4

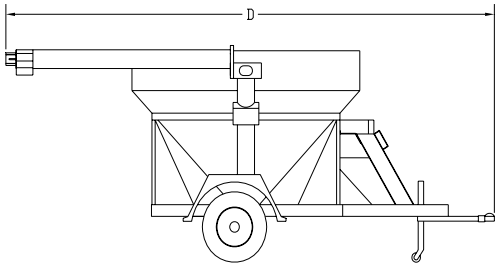


FRONT STOW





REAR STOW

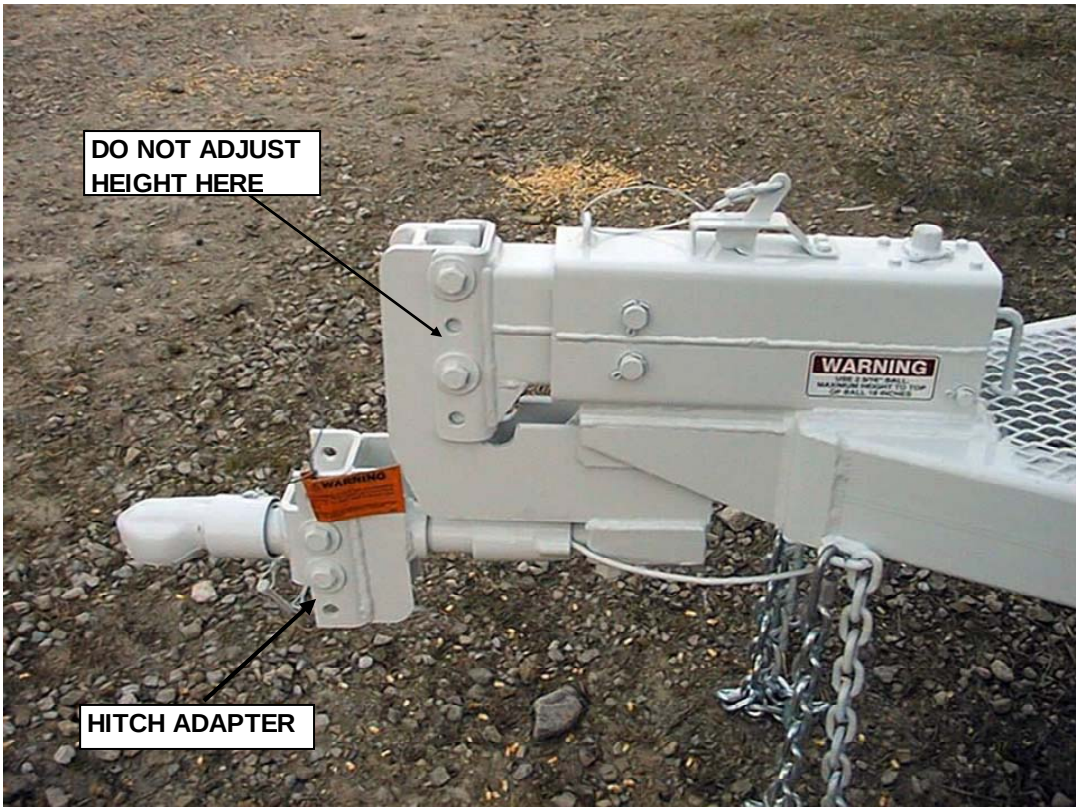


Special Instructions

Proper height from the ground to the top of the ball hitch on the towing vehicle should be approximately 17-1/8” or below. If the ball height on your towing vehicle does not fall within these limits weigh accuracy and towabililty will be affected.

If your GW150 cart has the hydraulic surge brake option you must adjust the ball coupler via the hitch adapter bracket on your cart to get the proper tongue height. Proper tongue height from the ground to the top of the 2-5/16” ball hitch with the brake option is approximately 14-1/2” to 18”.

*Frame should be somewhat level and tongue weight should be a minimum of 200 lbs. The axle position is adjustable and can be used to modify tongue weight for tow ability and weighing purposes.



COUPLER HEIGHT ADJUSTMENT

General Specifications & Features

1. Weigh Tronix™ Model 640 Farm Indicator – 2 lb. increment.
2. Briggs & Stratton®, 18 HP Vanguard Engine With Electric Start (Pull start backup system.)
3. 10,000 lb. Axis Torsion axle.
4. 12” x 16.5”, 12 ply Rated Tires.
5. Capacity: 150 Bushels.
6. Side Board Extension add on is ~50 bushel. This adds ~12-3/4” in Height.
7. Hydraulically Driven
8. 2-5/16” Bulldog Ball Coupler.
9. Standard, Non-brake Cart Has an Approximate Empty Weight of 2,600 lbs.
10. Tongue Jack.
11. Maximum Tongue Weight of 1000 lbs.
12. 6-1/2 Gallon Gasoline Tank.
13. 1/8” Steel or Poly Cup Auger Flighting.

Safety Precautions

1. No Riders

2. Stand Clear of all moving parts while in operation.

3. Make no adjustments while cart is running.

4. Cart must be “hitched and safety chains attached” while loading, unloading grain, or while in tow.

5. Make sure the tongue is secured at all times. Otherwise, if seed is in the unit it could tip backwards.

6. Do not touch or allow unit to come in contact with overhead electrical wires.

7. Gasoline tank should not be filled while engine is running or hot.

8. Auger “run switch” must be in “off” position while raising or lowering auger.

9. Do not operate Briggs & Stratton® Engine over 3,000 RPM.

10. Do not transport with auger in raised position.

11. Proper height to top of 2-5/16” ball hitch on towing vehicle should not exceed recommended allowance. (See page 2.)

12. Do not load in excess of tire manufacturer ratings for either the GW-150 cart or the towing vehicle.

13. Towing vehicle should be of adequate capacity.

14. Never enter the bin at any time.

15. Be aware of all information, caution, warning, and danger signs on the unit.

16. Be aware of hot hydraulic fluid in case of a hydraulic line break.

17. If GW-150 is equipped with side board option, the option is intended for static use only.

Operating Precautions

1. Observe all safety precautions listed in this manual.

2. No riders.

3. Stand clear of all moving parts while in operation.

4. Make no adjustments while cart is running.

5. **Cart must be hitched and secured properly with stay pin & safety chains during use.**

6. Do not allow unit to come in contact with overhead electrical wires,

7. Do not fill gasoline tank while the engine is running or hot.

8. Auger screw control must be in the off position while raising or lowering the auger.

9. Recommended maximum loaded towing speed of 20 mph, total cart weight not to exceed 8,880 lbs.

10. Wheel lug nuts must be tight.

11. Cart must be empty prior to unhitching from towing vehicle.

12. Consult the Briggs & Stratton engine manual for operating instructions.

13. Below 10 degrees F., change the hydraulic oil to SAE 5W30 motor oil.

14. Operate Briggs & Stratton engine at a maximum 3000 rpm.

15. Do not load in excess of tire manufacturer ratings for either GW-150 or towing vehicle.

16. Towing vehicle must be sized with the appropriate GVW towing capacity for this cart.

17. The operation of this cart must comply with all federal and state laws.

18. If GW-150 is equipped with side board option, the option is intended for static use only.

Maintenance & Storage

Daily Check List:

-Inflate tires to 75 psi cold.

-Tighten wheel lug nuts.

-Check hydraulic oil level (SAE 10W30, do not overfill.)
- Fill 80% full (9.5 gallons)
-Total Capacity: 12 gallons

-Check engine oil level (do not overfill.)

-Fill gas tank for daily operation.

-Check for oil leaks.

-Inspect for loose bolts.

-In-spect and check lights are working properly.

-Grease top auger bearing.

-Inspect safety chains for deformed or damaged components.

Seasonal Check List:

Inspect and pack wheel bearings.

Clean battery terminals.

Grease top auger hinge plate pin every 50 hours of operation.

Check Weigh Tronix for proper operation. (See Weigh Tronix manual.)

Service Briggs & Stratton engine. (See Briggs & Stratton manual.)

Empty gas tank for seasonal storage.

Change hydraulic filter after first 50 hrs. Thereafter every 300 hrs of operation.

Maintenance meter flashes every 25 hours. Consult Briggs & Stratton Manual for service schedule.

Wash and wax to maintain automotive finish. Do not use high pressure washer on your GW-150 unit or warranty may be void.

Check all fastners for tightness

Operating Procedures

1. Lubricate ball hitch for increased weigh accuracy.

2. Secure cart to towing vehicle with latch, stay pin, and safety chains. Then raise tongue jack to prepare to weigh grain.

3. Check engine oil and fuel before starting engine.

4. Run engine and hydraulic system to pre-warm before loading system.

5. Refer to the Weigh Tronix Users Manual for details on the key functions for the Model 640 Farm Indicator.

6. Weigh Tronix system will shut down if turned on prior to starting engine.

7. Receive grain.

8. Record weight data for yield comparison if desired.

9. Move auger to “up” position for unloading grain.

10. Turn on auger.

11. Increase engine rpm to 3,000 rpm.

12. Open inside unloading door.

13. Transfer grain to receiving vehicle and record weight data for yield comparison if desired for seed tendering.

14. Decrease engine rpm to idle throttle.

15. Turn off auger, and close unloading door.

16. Move auger to “down” or “storage” position for transporting.

17. Await next load to receive, weigh, and transfer.

18. Bulk seed handling: Run Briggs and Stratton engine at 1,800 rpm with door half open and keep seed tube full of grain for minimal seed damage.

19. Always clean out bin, and auger after using treated seed.

20. If GW-150 is equipped with side board option, **this option is intended for static use only**.

Operation of Maintenance Meter

Multi-Function Maintenance Meter: Hour Meter, Tachometer, and Service Alarm

Hour Meter / Tachometer: These functions are fully automatic. Upon engine start the meter will show rpm's. At engine shutdown the meter displays the total accumulated running time (which cannot be reset).

Service Alarms: This function is also fully automatic. It has a dual flash alert which displays "CHG OIL & LUBE" at 25 operation hour intervals. It begins flashing at 1 hour before the 25 hour increment, and finishes flashing at 1 hour after.

Note: Consult the Briggs & Stratton Engine Manual for the engine's proper maintenance schedule. Also, consult page 6 of this manual for the proper GW150 cart system maintenance schedule

Hydraulic Brake Adjustment

If your GW-150 is equipped with hydraulic surge brakes, it will be necessary to re-adjust the brakes after they have "seated-in". After the unit has been towed approximately 50 miles and the brakes have been applied 15 to 18 times the following steps will allow you to properly adjust your brakes:

Block wheels and secure unit completely.

Remove the rubber protective cover located on the bottom, back side of the brake drum assembly. There are two rubber covers. Remove the rear rubber cover protector on the left wheel and front rubber protector on the right wheel. (These directions are as you are sitting in the drivers seat.)

With a brake adjusting tool tighten the brake shoes by rotating the adjusting wheel up or by moving your hand from top to bottom until the wheel will no longer rotate. (See Fig. 1)

Move the adjusting wheel in the opposite direction 45 "clicks" for proper adjustment, or until further clicks start to slow the wheel when it is spinning (assuming the wheel has been elevated by a jack).

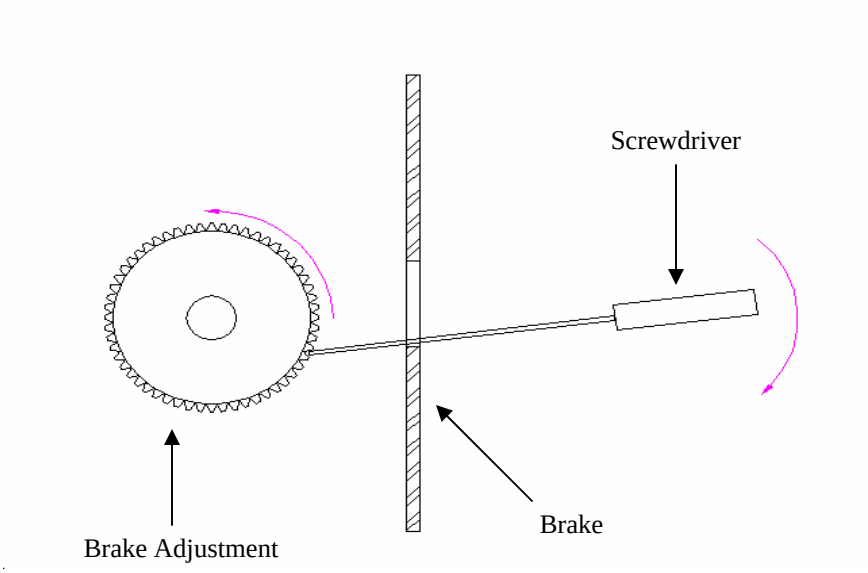


Figure 1 (Left Section View Shown):
To Adjust Brake Pads "Out" or "Tighten"

Trouble Shooting

Problem	Cause	Test	Correction
Engine will not start	No fuel Bad connections Dead Battery Starter	Visual Meter Meter Meter	Add fuel Clean or replace Charge or replace Repair or replace
Selective hydraulic components not working (Auger Screw, Unloading Door, or Auger Tube Display)	Hydraulic Oil Solenoid or Electrical Connections Hydraulic Components	Visual Check the meter connection or switch that is not working correctly. 	Add oil Fix faulty electrical connection or switch Replace faulty hydraulic component(s)
Weigh Tronix will not power up	Blown fuse Bad connections Dead Battery Other	Meter Meter Meter	Replace Clean or replace Charge or replace See Weigh Tronix Manual
Incorrect weights	Jack down Hitch Height Weigh Bar Wiring	Visual Measure Meter	Raise jack Adjust hitch to proper height See Weigh Tronix Manual Repair or replace *see pg. 10A for more details.
Auger speed slow	Plugged oil filter Carrier bearing adjustment	Visual Visual or Heat	Replace Adjust
Hydraulic oil over-heating	Engine over 3,000 RPM	None	Keep engine at 3,000 RPM
All Hydraulics will not operate	Blown Fuse Oil	Visual Visual 	Replace 10 amp fuse behind weigh head. Add Oil
Wagon sways during towing or “light tongue”	2-5/16” ball hitch height from top of ball to ground is over specified height. (See page 2, 2A.)	Measure	Lower ball on towing vehicle, or Adjust Hitch Adapter Adjust axle to rear position for additional tongue weight

Problem	Cause
Incorrect weights continued	Check system #1

-Make sure that the ball coupler supports the front weight of the unit so the weighing system works correctly.
-Make sure that the decal is on “TOP” of the weighing bars for correct installation.
-Make sure the weighing system is powered off.
-Make sure that the weigh cell cords are going to the correct weighing points.
Trace the middle cord from under weigh head to the front weigh bar. Trace the left cord to the left spindle. Trace the right cord to the right spindle. If this is not correct then switch cords accordingly so they do. For definition of left, right and front etc. Please see page 2A.
-While weigh head is off unplug both right and left cords.
-Power on weigh head and then press “GROSS” button then “ZERO/RESET” button. This will clear system.
-Apply know weight of approximately 150/200 pounds over the expanded metal below ladder. Record this weight (weight will be approximately two times actual weight) then Remove weight.
-Power off weigh head and disconnect center cord and then connect left cord to bottom of weigh head.
-Power on weigh head and then press “GROSS” button then “ZERO/RESET” button. This will clear system.
-Apply know weight of approximately 150/200 pounds over left wheel (may place on fender). Record this weight (weight will be approximately two times actual weight) then Remove weight.
-Power off weigh head and disconnect left cord and then connect right cord to bottom of weigh head.
-Power on weigh head and then press “GROSS” button then “ZERO/RESET” button. This will clear system.
-Apply know weight of approximately 150/200 pounds over left wheel (may place on fender). Record this weight (weight will be approximately two times actual weight) then Remove weight.
-Power off weigh head and reconnect all cords to system.
-Find the cell that is not in the approximate weight as the other two and that is the bad cell. If the cells are all approximately the same weight then a weigh head could be the issue. Please contact Par-Kan Company to continue on this issue.

Grain-Weigh 150 Hydraulic Flow Valve Assembly

The hydraulic flow valve controls the descend rate of the auger to its storage position. If you experience "chattering" of the auger during its return the following procedure will correct the problem:

Raise the auger to the displayed position.

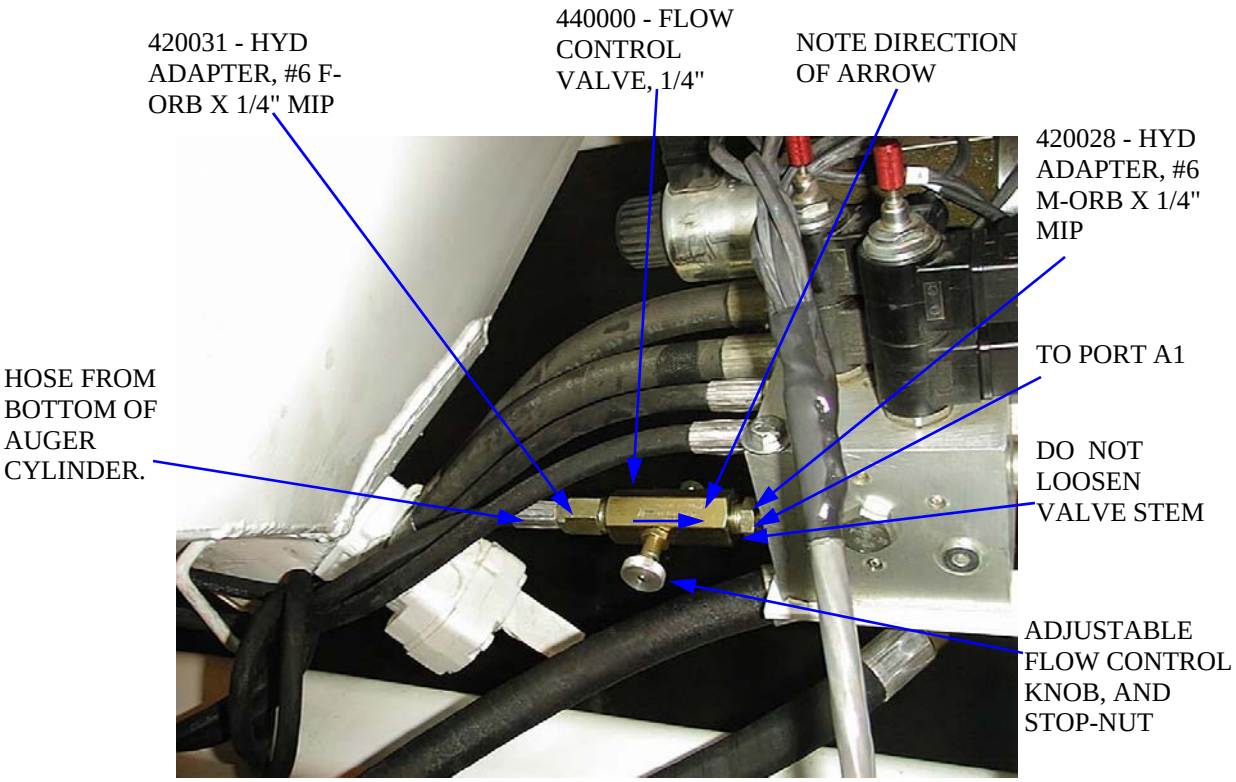
Loosen the stop-nut.

Tighten the adjust knob one turn.

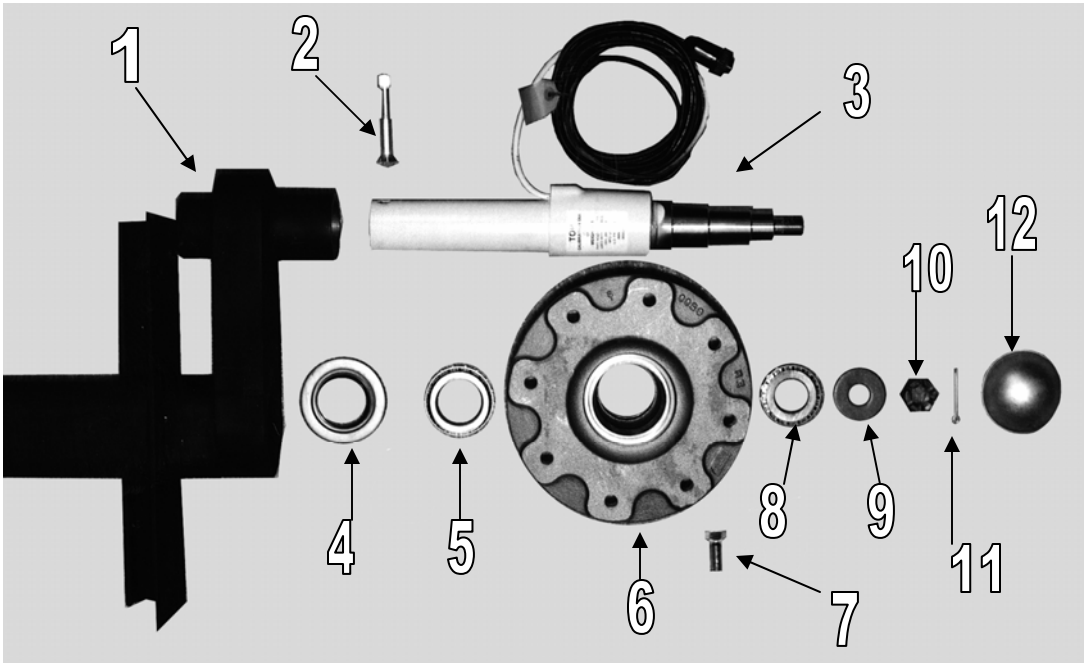
Tighten the stop-nut.

Lower the auger.

Note: If the auger is still "chattering" repeat the above procedure.

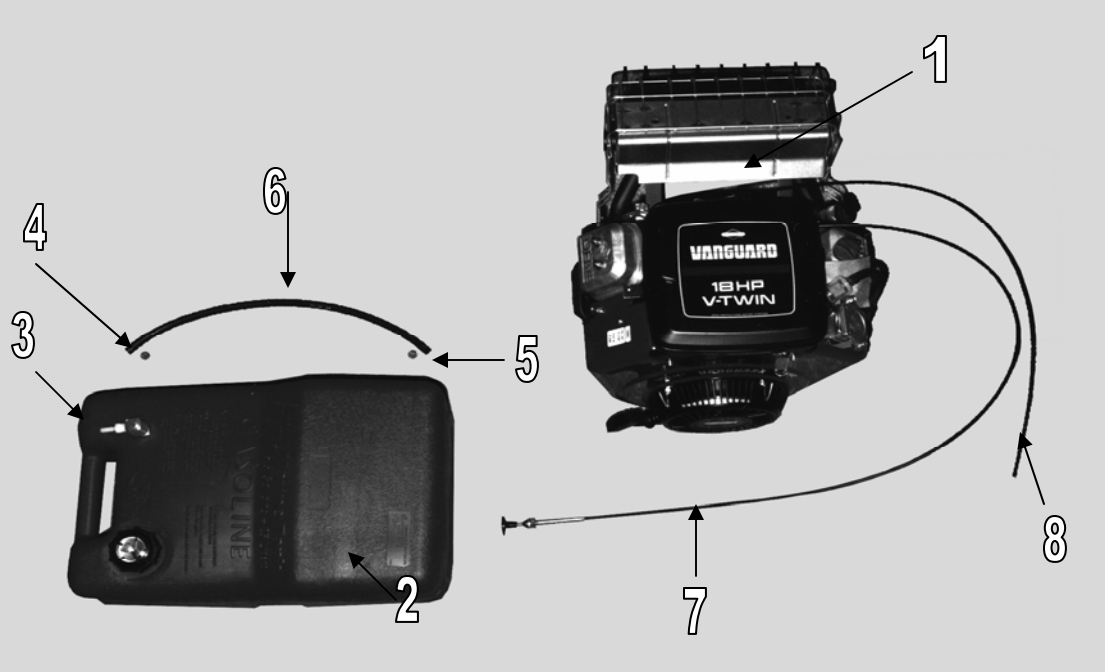

420031 - HYD ADAPTER, #6 F-ORB X 1/4" MIP
440000 - FLOW CONTROL VALVE, 1/4"
NOTE DIRECTION OF ARROW
420028 - HYD ADAPTER, #6 M-ORB X 1/4" MIP
TO PORT A1
HOSE FROM BOTTOM OF AUGER CYLINDER.
DO NOT LOOSEN VALVE STEM
ADJUSTABLE FLOW CONTROL KNOB, AND STOP-NUT

Grain-Weigh 150 Axle & Hub Assembly (Non-Brake)



Key #	Part Number	Description
1	241015RP	TORSION AXLE , GRAIN-WEIGH; PAINTED
2	212097	HHCS, 1/2"-13 X 4" GR8 ZINC
3	241011	SPINDLE, 2.12D-F BRDG, W/BRAKE PLATE
4	241129	SEAL,SPINDLE-GRAIN-WEIGH
5	241127	BEARING, INNER -GRAIN-WEIGH
6	241125	HUB ONLY, (TAPPED) GRAIN-WEIGH
7	241134	LUG BOLT, 9/16"-18(6500series) PRE-1998
8	241128	BEARING, OUTER -GRAIN-WEIGH
9	241130	SPINDLE WASHER, (6500series) GW
10	241135	NUT, SPINDLE PWC/LVC/BSC FRONT AXLE
11	210160	COTTER PIN, 5/32" X 2-1/4 (G-W hub)
12	241133	DUST CAP, (6500series) G-W

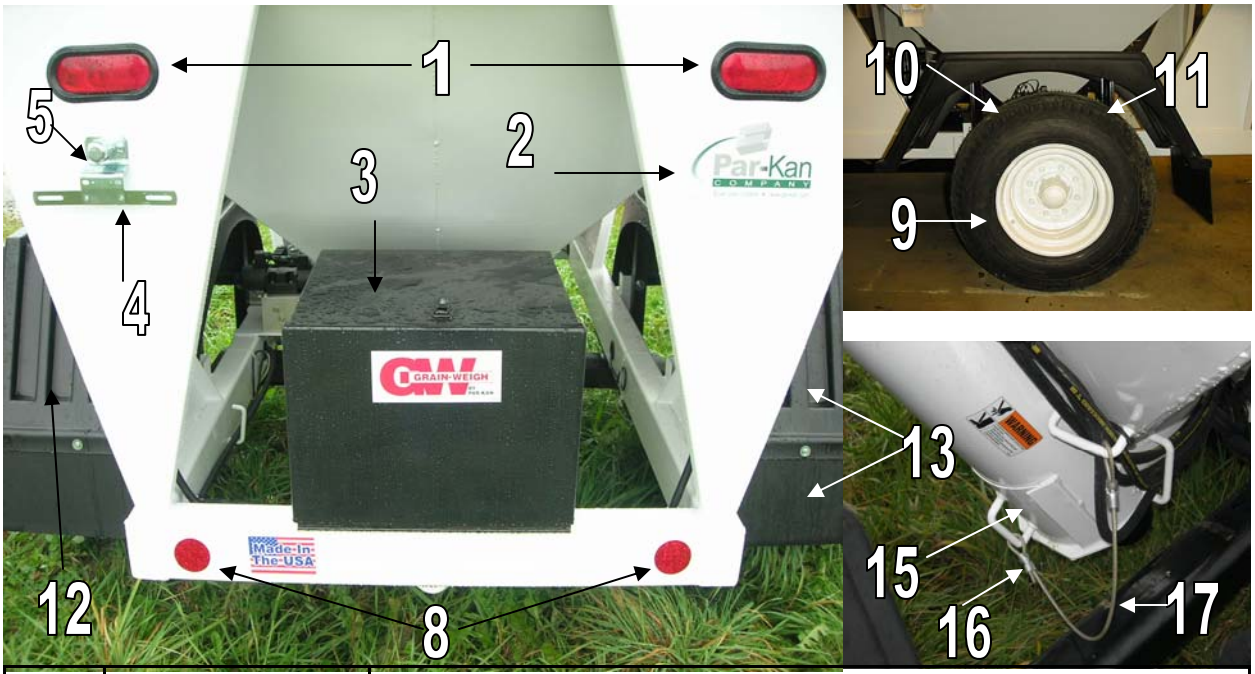
Grain-Weigh 150 Power Plant



Key #	Part Number	Description
1*	GW150-6-SA-002	Pre prepared engine assembly. (Includes: ignition switch wiring, low oil st off wiring, muffler guard, heat shield, cassapa pump, pump mount, motor oil, battery cable.) Does not include: throttle or choke cables
2	GW150-7-SA-008	Gas tank with fitting and hose assembled
3	224011	Nylon Pipe to hose adapter
4	220360	Gas line hose clamp
5	220360	Gas line hose clamp
6	220319	Fuel hose, ¼" I.D. x 20" length
7	260110	Choke Cable
8	260100	Throttle Cable (Does not include throttle lever)

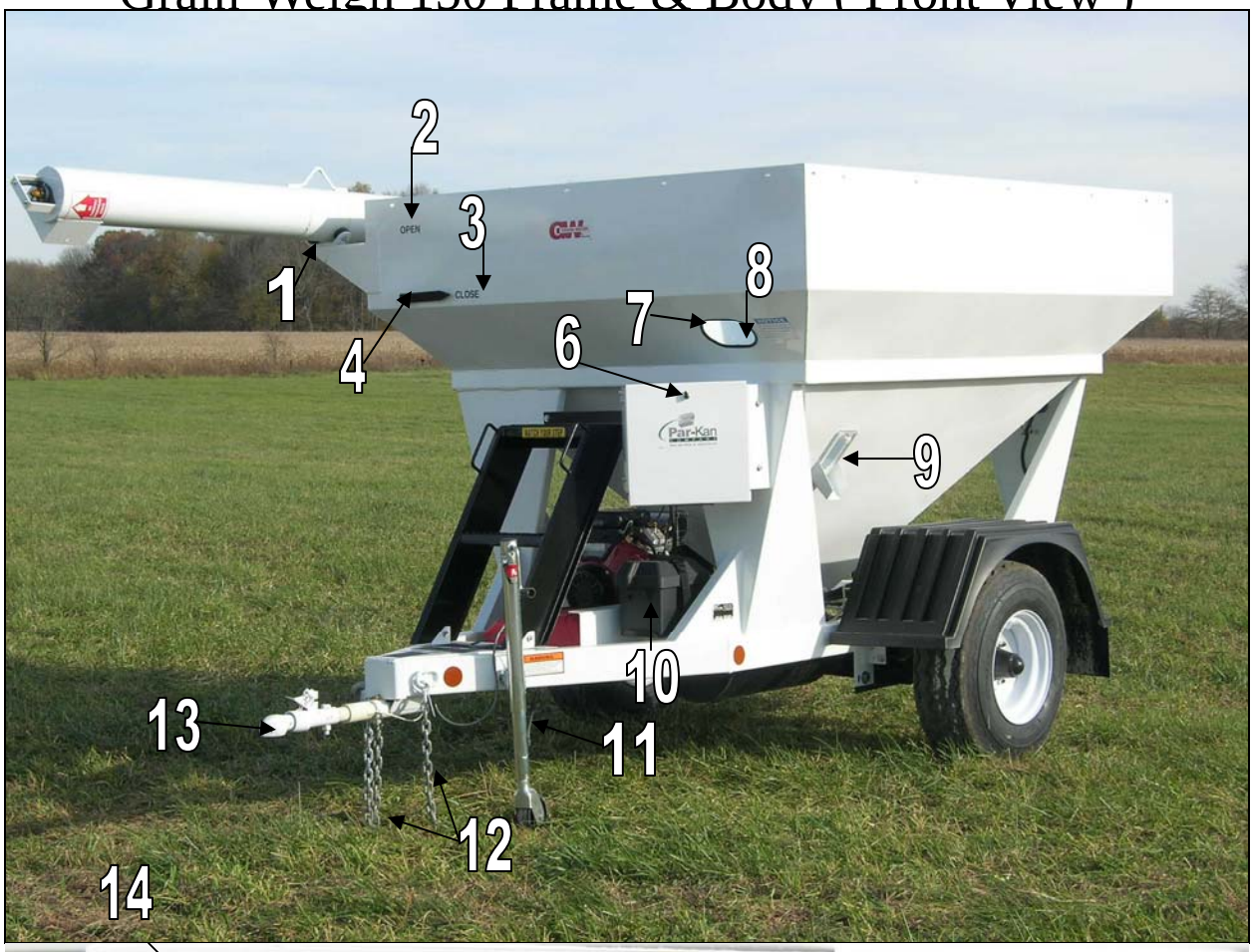
* Items not shown if full assembled state.

Grain-Weigh 150 Frame & Body (Rear View)



Key #	Part Number	Description
1	GW150KIT008	Tail light assembly kit (Includes: taillight, grommet, and pigtail plug)
2	250069	Decal, Par-Kan Company logo
3	GW150KIT006	Toolbox Kit (Includes: mounting hardware)
4	660011	License plate bracket
5	660010	License plate light
6	250250	Decal, Made in the U.S.A
7	250100	Decal, Grain-Weigh
8	250029	Reflector, 3” round red
9	241084	Tire & Rim Assembly
10	GW150-7-SP-004L	Fender Bracket Weldment Painted Black - Left (One used on each side)
11	GW150-7-SP-004R	Fender Bracket Weldment Painted Black - Right (One used on each side)
12	362002	Fender, black plastic
13	GW150-6-SA-004	Fender Assembly (Includes fender & mud flap) No Mounting Hardware
14	241201	Mud Flap
15	GW150-5-SP-001	Clean Out Door, (painted white)
16	270402	Cable Furrule, 3/32” Aluminum
17	270399	Cable, 3/32” vinyl coated (20” length)

Grain-Weigh 150 Frame & Body (Front View)

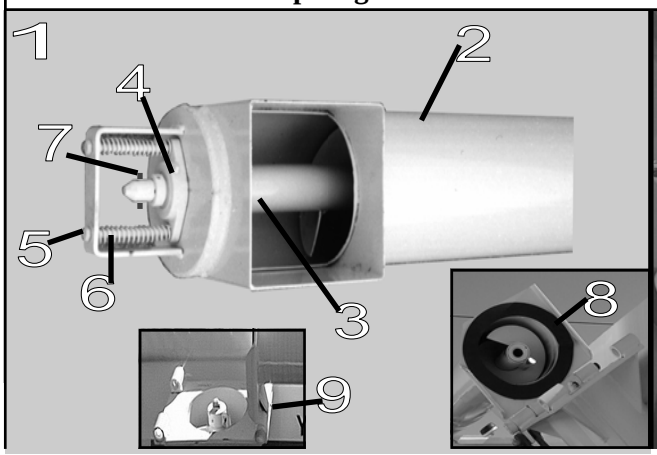


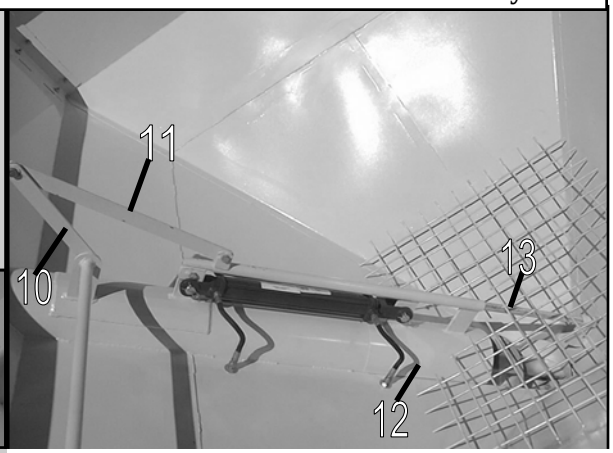
Grain Weigh 150 Frame & Body (Front View) Continued

Key #	Part Number	Description
1	201110	Rubber Bumper, 1” x 2-1/2” (Black)
2	250101D	Decal, “Open”
3	250101E	Decal, “Close”
4	GW150-7-SP-007	Indicator Pointer Assembly, (Painted Black)
5	GW150-7-SP-003	Ladder Weldment (Painted Black)
6	270013	Cam Lock, (Grain-Weigh Box)
7	201028	Gasket, 3/6” x ½”
8	361559	Sight Glass Square
9	GW150-A-7-W015	Sample Door Weldment
10	640254	Battery Box (Includes Hold Down Strap)
11	280100	Tongue Jack With Swivel Wheel
12	270281	Safety Chain Assembly (Non-Brake Units)
13	GW150-6052RP	Non-Brake Ball Coupler, (2-5/16”) Painted White
14	660012	Light, Weigh Tronix Box
15	640195	Weigh Scale Head (Model 640 Weigh Tronix)
16	620101	Tachometer
17	640024	Switch, Toggle sp-st (On - Off)
18	640022	Switch, Toggle sp-st (Momentary)
19	640021	Switch, Toggle sp-st (On – Off - On)

Grain-Weigh 150 Auger Components

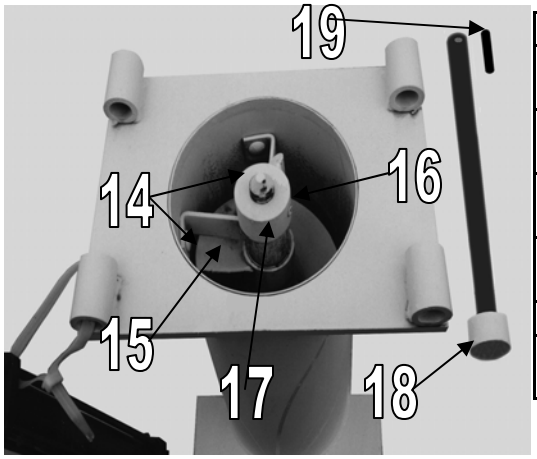
Top Auger **Flow Control / Indicator Assembly**





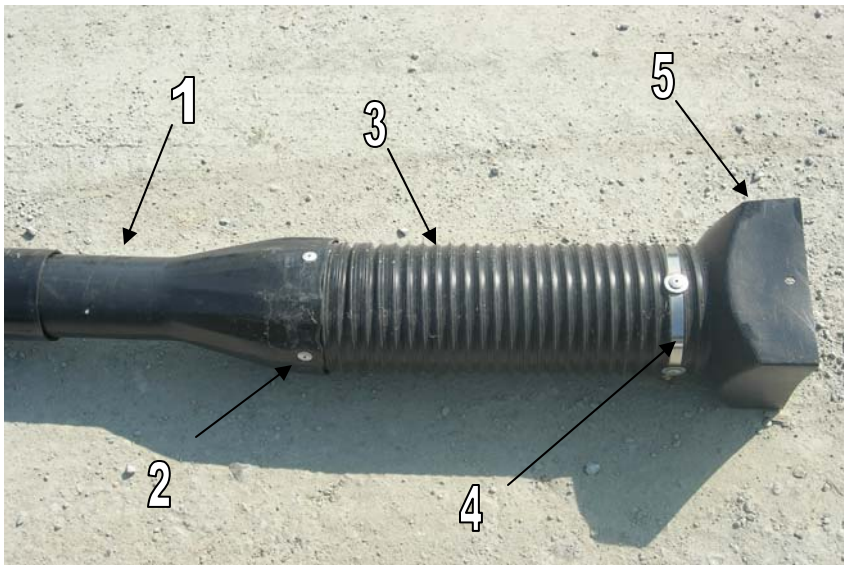
Key #	Part Number	Description
1	GW150-4-SP-006	Top Auger Assembly Powder Coated White (Specify front / rear fold)
2	GW150-4-SW-006	Top Auger Housing Powder Coated White (Specify front / rear fold)
3	GW150-4-SW-001	Top Auger Screw Assembly
4	280201	1” Flange Bearing
5	211079	Top Auger Spring Bolts – 3/8” x 6”
6	270504	Top Auger Spring
7	210100	Roll Pin – ¼” x 1-3/4”
8	362012	Auger Gasket
9	460000	Top Auger Grease Zert
10	GW150-7-SP-010	Indicator Linkage Rod Assembly Powder Coated White
11	GW150-7058	Indicator Linkage Bar Powder Coated White
12	GW150-5-SP-011	Inside Door Assembly Powder Coated White
13	GW150-5-SP-012	Inside Door Rod Assembly Powder Coated White

Bottom Auger

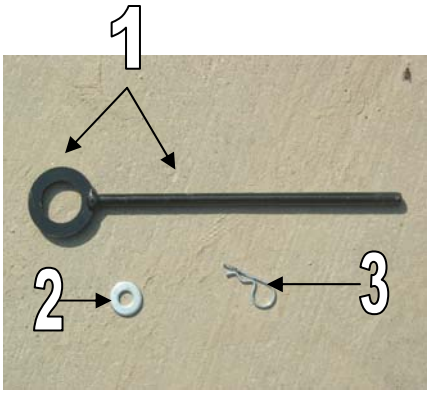


Key #	Part Number	Description
14	GW150-5-SW-005	Bottom Auger Carrier Bearing
15	GW150-5-SA-009	Bottom Auger Screw Assy
16	210104	Spring Pin, 3/8” x 2-1/2”
17	GW150-5-SW-006	Auger Drive Collar Weldment
18	GW150-4-SP-004	Top Hinge Pin
19	210100	Spring Pin, 1/4” x 1-3/4”

Grain-Weigh 150 Seed Tubes



Key #	Part Number	Description
1	362031	SEED TUBE, TELESCOPING 5” D 3 SEC.
2	210075	POP RIVET, 3/16” X .626” X .750” AL/ST
3	GW200C-9P700	SEED TUBE FLEX HOSE
4	220366	HOSE CLAMP, 6” S.S.
5	362027	SEED TUBE, ADAPTER **GW150/GW200A**



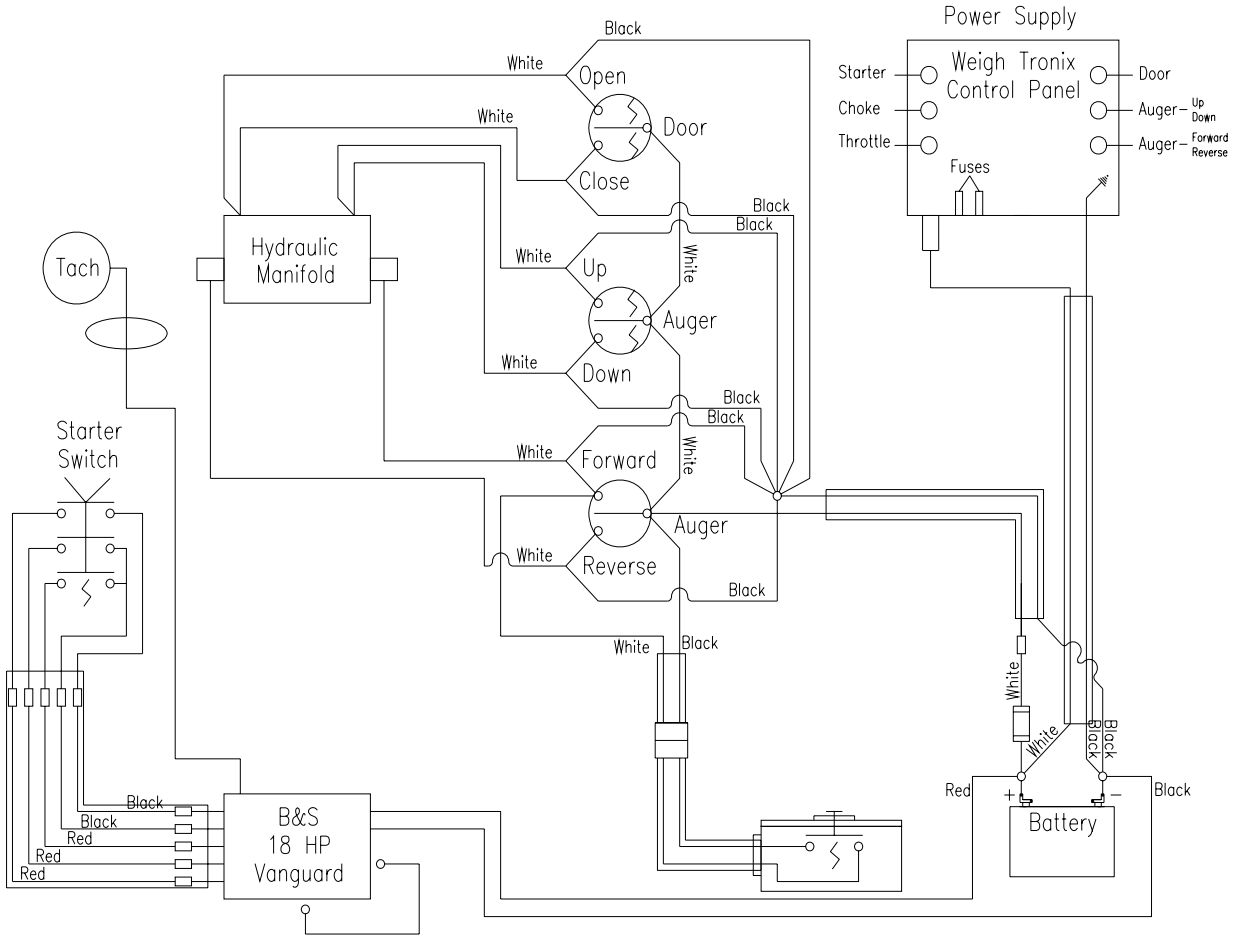
Key #	Part Number	Description
1	GW150-4-SW-009	Top Auger Boot Pin Weldment
2	210112	Hair Pin Clip
3	217201	Washer, 3/8” USS Flat Zinc

Grain-Weigh 150 Decals

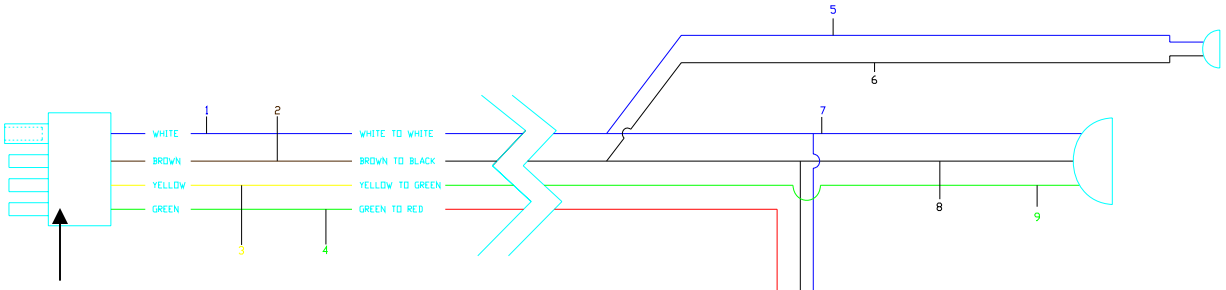
LIGHT SWITCH
DOOR OPEN
DOOR CLOSE
AUGER DISPLAY
AUGER STORAGE
AUGER RUN
AUGER
WARNING
TO PREVENT SERIOUS INJURY OR DEATH FROM MOVING PARTS:
KEEP HANDS, FEET, AND CLOTHING AWAY FROM MOVING PARTS.
CLOSE ALL GUARDS AND SHIELDS BEFORE OPERATING MACHINERY.
PLACE ONLY THE LOWER PORTION OF THIS DECAL IN A LOCATION VISIBLE TO THE OPERATOR OR ALL WARRANTIES ARE VOID!!
ATTENTION!
THE TARP MUST BE KEPT TO A RECOMMENDED 40-60 LBS. OF TENSION OR EXCESSIVE TARP WEAR MAY OCCUR.
DO NOT WALK OR STAND ON THE END CAPS.
DO NOT OPERATE THIS VEHICLE AT HIGHWAY SPEEDS, WHILE THE TARP SYSTEM IS IN THE "OPEN" POSITION!
OPERATING INSTRUCTIONS
GRAIN-WEIGH BY PAR-KAN
BE CAREFUL! OVERHEAD WIRES
WARNING
Recommended maximum loaded towing speed of 20 MPH! Total cart weight must not exceed 8,880 lbs. Towing vehicle must be sized with the appropriate GVW rating and towing capacity for this cart. The operation must comply with all federal and state laws for such combination vehicle.
WATCH YOUR STEP
3000 RPM MAXIMUM
BE CAREFUL!!!! OVERHEAD WIRES
WARNING
READ USERS MANUAL PRIOR TO OPERATION TOWING OR SERVICING
WARNING
USE 2 5/16" BALL. MAXIMUM HEIGHT TO TOP OF BALL 18 INCHES
CLOSE
OPEN
FAST
SLOW
CAUTION
PINCH POINTS WATCH YOUR HANDS
NOTICE
THOROUGHLY CLEAN OUT UNIT AFTER HANDLING TREATED SEED TO PREVENT CONTAMINATION OF UNTREATED SEED OR COMMERCIAL GRAIN
Made-In-The-USA
Par-Kan COMPANY
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19

Key #	Part Number	Description
1	250018	DECAL, WARNING-KEEP HANDS FEET ETC
2	250101C	DECAL, TOGGLE SWITCHES
3	250051	DECAL, TREATED SEED
4	250104	DECAL, WARNING USE 2-5/16" BALL E&S
5	250112	DECAL, "CAUTION" PINCH POINT
6	250105	DECAL, WARNING READ USER'S MANUAL(GW)
7	250101B	DECAL, SLOW SMALL
8	250101D	DECAL, OPEN LARGE
9	250101A	DECAL, FAST SMALL
10	250101E	DECAL, CLOSE LARGE
11	250057	DECAL,BE CAREFUL OVERHEAD WIRES W/O ARRO
12	250027	DECAL,"WATCH YOUR STEP"
13	250016	DECAL, BE CAREFUL OVERHEAD WIRES(ARROW)
14	**	DECAL, ORDER THROUGH SHURCO
15	250111	DECAL, *DO NOT REORDER*"WARNING" AUGER
16	250101F	DECAL, 3000 RPM MAXIMUM BLK LETTERING
17	250100	DECAL, GRAIN WEIGH (SMALL) RED/BL ON WHT
18	250000	DECAL, "PAR-KAN" 6-1/4" X 4-1/2"
19	250250	DECAL, "MADE IN THE USA"

Grain-Weigh 150 Electrical Schematic



GW150 Trailer Wiring Diagram



3 Prong Male, 1 prong Female Connector

KEY		
1	3-1/4"	GROUND
2	3-1/4"	BRAKE AND TAIL LIGHTS
3	3-1/4"	TURN SIGNAL LEFT
4	3-1/4"	TURN SIGNAL RIGHT
5	21'4-1/4"	GROUND
6	21'4-1/4"	LICENSE PLATE POWER
7	20'11-1/2"	GROUND
8	20'11-1/2"	TAIL LIGHT LEFT
9	20'11-1/2"	TURN SIGNAL LEFT
10	23'1-1/4"	GROUND
11	23'1-1/4"	TAIL LIGHT RIGHT
12	23'1-1/4"	TURN SIGNAL RIGHT

Grain Weigh 150 Hydraulic System

Grain Weigh 150 Hydraulic Parts Listing

Key #	Part Number	Description
1	420031	Hydraulic Adapter #6FORB x 1/4” NPT
2	420015	Hydraulic Adapter Elbow
3	420022	Hydraulic Adapter
4	440611	Hydraulic Oil Filter with Spin on Cartridge
5	440000	Flow Control Valve
6	420024	Hydraulic Adapter
7	420055	Hydraulic Adapter
8	430066	Cylinder (3”)
9	430061	Cylinder (2”)
10	440003	Manifold Block Assembly
11	222408	Reducer Bushing
12	220579	Shaft Coupling (1”)
13	220580	Shaft Coupling (5/8”)
14	220581	Shaft Coupling – Spider
15	440617	Hydraulic Flow Ezy Breather
16	410111	Hose - Auger to Cylinder
17	410076	Hose – Auger Cylinder Top
18	410077	Hose – Auger Cylinder Bottom
19	410061	Hose – Tank to Pump
20	410110	Hose – Manifold, Motor, & Return
21	410110	Hose – Manifold, Motor, & Return
22	410072	Hose – Manifold to Filter
23	410071	Hose – Pump to Manifold
24	410111	Hose – Auger to Cylinder
25	430005	Hydraulic Tank
26	430009	Pump Mount – GW Adapter
27	430008	Hydraulic Pump
28	420023	Hydraulic Adapter
29	440615	Hydraulic Strainer
30	430013	Hydraulic Motor

Grain Weigh 150 Towing Safety Appendix

Towing the Grain Weigh Cart is designed to be safe if some basic precautions are taken. It is your responsibility to make sure these procedures are followed for the safety of yourself and others on the road. In addition, due to the variety of laws you should check local and/or state requirements.

Some common reasons for towing accidents include the following:

- Failure to properly connect the coupler and/or safety chains.
- Overloading trailer, towing vehicle, or safety devices.
- Towing with excessive speeds.
- Damaged or improperly maintained towing equipment.

Items to consider before towing the Grain Weigh 150 Cart:

-You should check the payload rating on your towing vehicle(s), and equipment to ensure they can meet the requirements of
pulling our trailer.

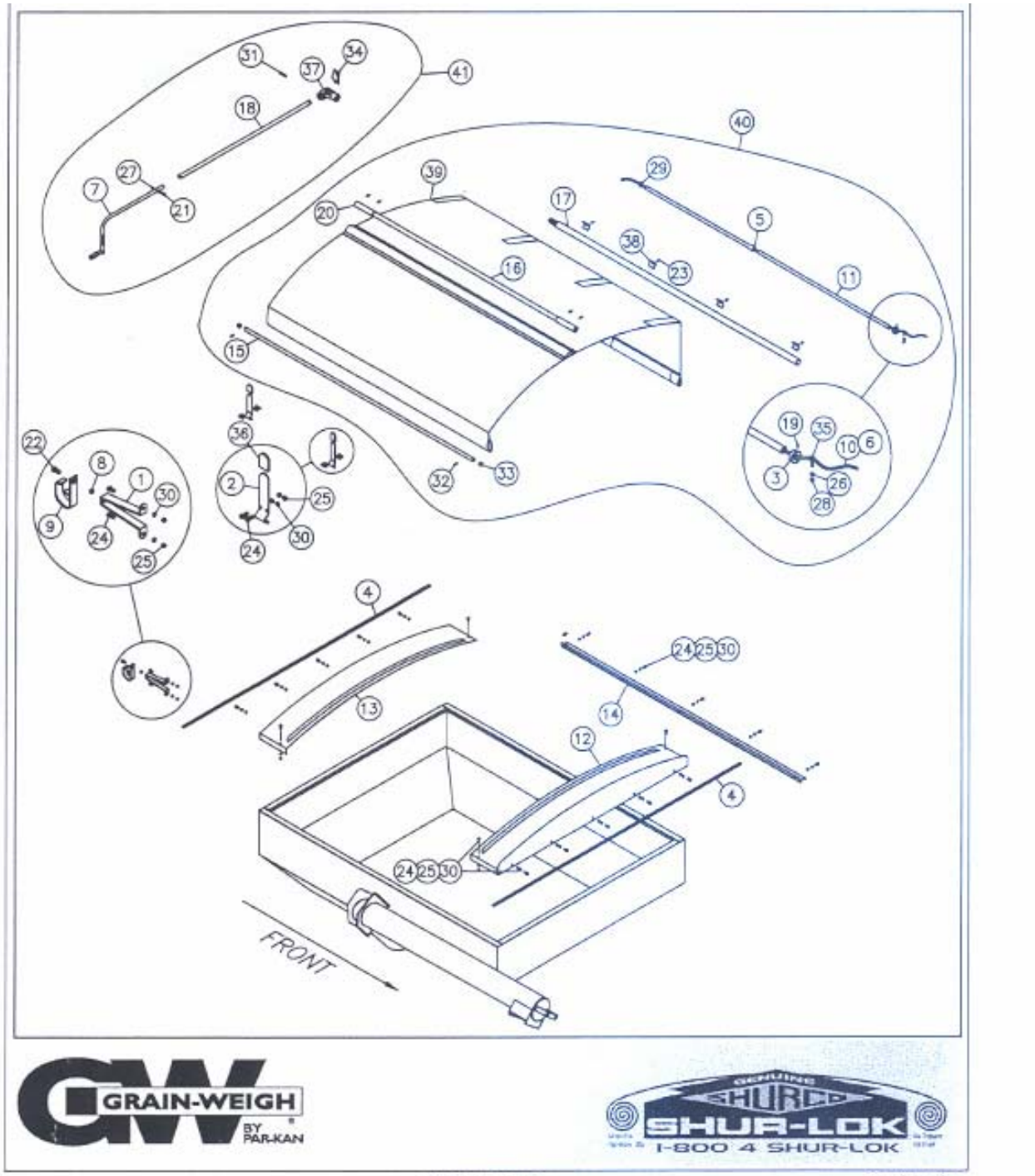
- Regular inspections should be made to safeguard against failure due to damaged towing and safety equipment. Some of these items include safety chains, hydraulic brake system, and turn signals/taillights.
If one or more of the links or fittings on the safety chain is stretched, broken, or deformed it should be replaced. Always replace entire chain assembly.

- Safety chains shall be connected to the towing vehicle and trailer so that the slack for each length of chain is approximately the same when the vehicles are aligned on a common front to rear centerline. There shall be no more slack than necessary to permit proper turning of the vehicles. The safety chains shall be crossed under the trailer tongue and connected to the hitch assembly or to other towing vehicle members.

Note: Crossing the chains under the tongue typically reduces the probability of stressing or breaking the chains when turning.

Figure 3 – Standard Ball Coupler

Grain Weigh 150 Shurco Replacement Parts



APPENDIX B 01/01/01

Grain Weigh 150 Shurco Replacement Parts

Key #	Part Number	Description
1	361544	Crank Stand-Off 7”
2	361521	Tarp Stop
3	361529	Roll Return End plug – Nylon
4	361512	Trim Seal 110” long
5	361549	Roll Return Tube 46”
6	361546	Stretch Rope, 124” long
7	361542	Crank Arm Assembly
8	361548	Retainer Bushing
9	361541	Crank Retainer
10	361535	Rope Guard
11	361540	Roll Return Tube
12	361511	Font Bulkhead
13	361510	Rear Bulkhead
14	361539	Side Mount Latch
15	361538	Fixed Tube
16	361537	Ridge Pole
17	361536	Roll Tube with Spline
18	361530	Crank Extension
19	361534	Screw, 8-32: x 3.8” Self Tapping
20	361525	Protective Cap
21	361527	Cap Screw, 3/8” x 1-3/4”
22	361543	Cap Screw, ½” hex
23	361518	Screw, ¼” x ¾” Self Tapping
24	361547	Screw, 3/8” x 1” Self Tapping
25	361545	Hex Nut, 3-18”-16 Zinc
26	361533	Nut, 5/16” Hex
27	361550	Locknut, 3/8” – Centerlock
28	361532	Locknut, 5/16” – Nylon
29	361526	Flat Washer, 3/8”
30	361523	Lock Washer, 3/8”
31	361522	Spring Pin, 3/8” x 2’
32	361524	Nylon Truck Rivet
33	361516	Universal Round Insert, 1-1/8”
34	361520	Wire Lock Pin, 3/8” x 2-1/2”
35	361531	Eyebolt Anchor, 5/16” x 1”
36	361519	Protective Cap
37	361515	Splined U-Joint, 1-1/4” x 8”
38	361517	Plastic U-Clamp
39	361508	Tarp Only
40	361514	Tarp Cover Assembly with Poles & Tube
41	361509	Crank Assembly

Model 640 Weigh Tronix Calibration Procedure

Model: 640

1. Press the **On/Off** button and the greeting **"Hello"** should arrear on the screen and then the scale will return to zero. (Make sure the scale is empty and hooked up to the towing vehicle)

2. From the G/N mode, press and hold **the HOLD/MENU** key for three beeps (3 sec.) then release… **SET.PAS** is displayed

3. Press the **RM** button until the number **6** is displayed then press the **HOLD/MENU** button to move the cursor one position.

4. Press the **RM** button until the number **4** is displayed then press the **HOLD/MENU** button to move the cursor one position.

5. Press the **RM** button until the number **0** is displayed then press the **PRINT/SELECT** button once… **CONFIG** should be displayed.

6. Press the **HOLD/MENU** button until….**SPAN** is displayed

7. Press the **PRINT/SELECT** button and now the current weight should be displayed.

8. With either a calibrator or some known weight, put an appropriate weight onto the scale… and the current weight is displayed.

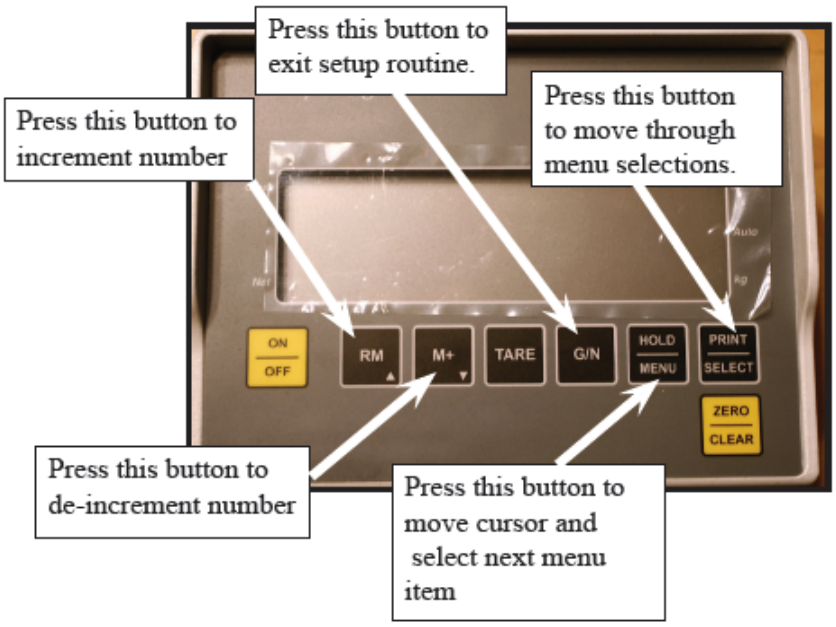
9. Press the **RM** key to increase the weight or the **M+** key to decrease the weight accordingly.

10. Once the appropriate weight value is shown, press the **PRINT/SELECT** button… **SPAN** should be displayed on the screen.

11. Press the **G/N** button until the indicator returns to the gross weighing mode. Calibration of the scale is then complete.

Model 640 Weigh Tronix Adding LED Light Procedure

Setup Procedure for Weigh-Tronix 640M an 640 Indicator when used with external remote display.



Buttons used to setup scale for remote display.

Agri-Tronix Corporation • 2001 North Morton Street • Franklin, IN • 46131 • 1-800-445-5058

Model 640 Weigh Tronix Adding LED Light Procedure

640 SETUP....

The 640 style indicators needs to have the parameters set correctly to operate a remote display. The following pages will instruct you step by step on how to accomplish this.

Place the scale in "SETUP MODE" so the parameters can be set.

A. Press and hold the Hold Menu button for 3 seconds and then release after the 3rd beep from the internal horn. "SET.PAS" will be displayed (SET Parameters).

Note- If no button is pressed for 10 seconds the indicator will exit the setup mode.

B.Press the up arrow key button 7 times or until the number 6 is displayed in the first position on left.. If you increment past 6, you can keep pressing the up arrow key until 6 is shown again.

C.Once the 6 is displayed, press the "Menu" key to increment the cursor to the next number on the right.
D. Press the up arrow key until a "4" is displayed.
E. Press the "MENU" key to increment to the next digit on right.
F. Press the "UP ARROW" key until a zero is displayed on the screen.
G.Press the Print/Select Key twice and this will place you in the Configuration Mode.

Model 640 Weigh Tronix Adding LED Light Procedure

The section that needs to be configured is labeled RS232.
A. To get to that section of the setup, continue pressing and releasing the "MENU" button until "RS232" is displayed on the screen.
(The "MENU button" will need to be pressed and released eleven times)

B. Press the "Select Key" to enter the RS232 setup mode.

C. Continue pressing the Menu key until the word "LAYOUT" appears on the screen.

D. Press the Select Key while the word "LAYOUT" is shown on the screen.

E. Press the "MENU key" until the word "REMOTE" appears on the screen.

F. Press the "Select key" and the word "LAYOUT" will appear on the screen.

G. Press the "G/N key" several times (normally 3 times) until the display reads "BUSY"

H. The indicator will now be in normal run mode and is ready to use.

The other parameters in the RS 232 section should be correct from the factory settings. In the event the other settings have been changed, use the setup procedure outlined in this instruction sheet to set the other RS232 parameters to the following values.
Baud = 9600
Parity = NONE
Data = 8
Hand = NONE
Layout = REMOTE
Auto = OFF

Model 640 Weigh Tronix Adding LED Light Procedure

The remote display is powered from the 8 pin connector located next to the load cell connector of the 640M indicator.

When the display is powered off the remote display will blank and enter into a "sleep mode" until the indicator is powered up.

When the remote is first powered up, it will display 123456 and then blank the display until a signal is received from the scale indicator.

If no signal or the wrong signal (incorrect parameter settings) are received, the display will remain blank.

Par-Kan Company
2915 West 900 South
Silver Lake, IN 46982

Phone: 1-800-291-5487
Phone: 260-352-2141
Fax: 260-352-0701

Contact: Sales Department
E-mail: GWSales@par-kan.com
Website: www.par-kan.com